

2012-13 Grant Proposal Solicitation

AB 118 Air Quality Improvement Program (AQIP)

**ADVANCED TECHNOLOGY DEMONSTRATION PROJECTS:
ZERO-EMISSION OFF-ROAD EQUIPMENT**

December 13, 2012



**California Air Resources Board
Air Quality Improvement Program (AQIP)**

**Advanced Technology Demonstration Projects:
Zero-Emission Off-Road Equipment**

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SUMMARY

The Air Resources Board (ARB or Board) is soliciting proposals from eligible Grantees to administer and demonstrate advanced zero and partial zero-emission off-road technologies. It is anticipated that up to **\$1,000,000** will be available for this Solicitation and up to five independent projects may be selected. All work must be completed by May 30, 2015. Specific tasks are outlined within this solicitation. Proposed projects are due to ARB by **February 7, 2013 at 5:00pm.**

This Solicitation is issued under the Assembly Bill 118 (AB 118) Air Quality Improvement Program's (AQIP), Advanced Technology Demonstration Projects and is intended to fund technologies on the cusp of commercialization with the potential for significant targeted reductions in criteria pollutants and greenhouse gas emission reduction co-benefits. This competitive Solicitation is open to local air districts or other California-based public agencies that demonstrate the requisite technical and administrative expertise.

BACKGROUND

In 2007, the *California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007* (AB 118, Statutes of 2007, Chapter 750) was signed into law. The Act created AQIP, a voluntary incentive program administered by ARB, to fund clean vehicle and equipment projects, air quality research, and workforce training. ARB's appropriation for AQIP projects in the Fiscal Year (FY) 2012-13 State Budget is \$40 million. Based on projected revenues for AQIP in FY 2012-13, ARB estimates approximately \$27 million will be available for grants.

In June 2012, ARB adopted the AQIP Funding Plan for FY 2012-13 (Funding Plan). The AQIP Guidelines, approved by the Board in 2009, establish minimum administrative and implementation requirements for AQIP, while the Funding Plan serves as the blueprint for expending FY 2012-13 AQIP funds. The Funding Plan focuses AQIP on supporting development and deployment of the advanced technologies needed to meet California's longer-term, post 2020 air quality goals, and directs about seven percent of FY 2012-13 AQIP funds to Advanced Technology Demonstration Projects. The Funding Plan also allows for potential redirection of additional limited available funding to Advanced Technology Demonstration Projects under specific conditions.

ARB's goal under the Advanced Technology Demonstration Projects is to fund emerging strategies that are near deployment (less than three years from commercial application and past the initial research and development stage); and have the potential of reductions in criteria and toxic air pollutants, with greenhouse gas reductions as a desired co-benefit. A significant investment of AQIP Advanced Technology Demonstration Project funds in zero and partial

zero-emission off-road equipment can yield large oxides of nitrogen (NO_x) and particulate matter (PM) reductions, accelerate implementation of new zero-emission technologies in this sector, and potentially provide reductions in carbon dioxide (CO₂) emissions as a co-benefit.

This competitive Solicitation is expected to be the sole grant opportunity to be awarded for the off-road category this fiscal year. Significant progress has been made in integrating zero-emission technology in the off-road category by using fuel-cells, battery energy storage strategies, and other technologies. The goal of this Solicitation is to accelerate zero-emission off-road technology into the marketplace. Projects that can utilize full zero-emission technology may score higher than those technologies that only partially eliminate emissions. In addition, projects that can build on synergies generated from established infrastructure investments and experience with existing zero-emission technologies are also encouraged to apply.

Need for Emissions Reductions from the Off-Road Category

Off-road equipment is a significant source of diesel PM, as well as NO_x emissions that lead to ozone and secondary PM. Statewide, they are responsible for a significant fraction of the total PM and NO_x emissions from mobile diesel sources. Off-road equipment is ubiquitous in its distribution throughout the state, with many applications and functions. Off-road equipment can be found in diverse roles such as boom lifts in maintenance and construction applications, transport refrigeration units (TRUs) keeping perishable goods cool while transported from warehouses to business and markets, or goods movement equipment at or near the ports.

With such a diverse range of potential applications, projects selected under this Solicitation to demonstrate advanced technologies should be able to provide a significant improvement in air quality for many affected areas within the state when fully integrated into the marketplace.

Current Technology

ARB anticipates that there are a variety of technologies currently available that, when extended into new equipment types, will meet the objectives of this Solicitation. For example, hydrogen fuel-cell lift trucks can be found in warehouse and distribution environments where hydrogen infrastructure has already been introduced, therefore, the economic barrier toward placement of additional fuel-cell equipment has been lowered due to past infrastructure investment. Introducing additional hydrogen-based zero-emission technologies in the warehouse and distribution centers is a promising next step and an investment of AQIP Advanced Technology Demonstration Project funds can further reduce emissions locally and regionally.

Industry has also made significant progress in developing zero-emission transport refrigeration systems using fuel-cell, battery systems and cold plate technology to replace conventional diesel-fueled TRUs for use in regional food distribution. Zero-emission transport refrigeration systems can significantly reduce emissions of criteria pollutants not only near warehouses and distribution centers, but also regionally, since many diesel TRUs currently keep perishables cool while in transport to local restaurants, school cafeterias, and hospitals, directly reducing exposure to PM and NOx.

In addition to hydrogen-based zero-emission technologies and zero-emission transport refrigeration systems, recent advancements have been made in the electrification of equipment used in freight transport. Cargo handling equipment and yard trucks has seen a strong push toward zero-emission technology driven both by economics and regulatory goals. For example, using grid power to recharge equipment batteries for propulsion can lower operational cost and reduce criteria pollutant and CO₂ emissions.

Demonstrating these technologies now can accelerate advanced technology into the marketplace, show economic advantages of zero-emission technologies in a commercial environment, and provide emission benefits for regions that are out of compliance with federal and state ambient ozone and PM standards.

ELIGIBLE GRANTEES

This competitive Solicitation is open to local air districts or other California-based public entities, with expertise implementing demonstration projects, to act as the lead agency providing administration and oversight for the demonstration project. Interested private sector parties, i.e. technology demonstrators, must partner with an air district or other California-based public entity in submitting a demonstration project proposal. Only projects from eligible Grantees will be scored.

An air district or other public entity can request demonstration project funds, without an identified technology demonstrator, with a commitment to solicit for a project once funds are secured from ARB via this competitive Solicitation process. However, projects that already have all the needed participants, such as identified end user of the proposed equipment, technology demonstrator and eligible Grantee will score higher than those that do not have team members identified in advance (See Evaluation and Scoring Criteria 8, page 15).

The public agency will be required to submit a resolution of its governing board prior to execution of the Grant Agreement that commits the agency:

- To comply with the requirements of advanced technology demonstration projects, and
- To accept the Grant funds from ARB

If the public agency does not have a governing board, then a binding written commitment from an official of the agency that has authority to enter into contractual obligations will be required to fulfill the above commitments.

If the public agency that is submitting the project proposal contributes a match to the project, the board resolution shall authorize the Air Pollution Control Officer or other legally authorized official to supply sufficient funding to meet the stated match commitment. Signed Grant Agreements and approved board resolutions need to be in place on or before the deadline listed in the Solicitation Timelines on page 9.

Sub-agreements between the technology demonstrator and the Grantee need to be in place before work can start. The deadline for having the sub-agreement in place is also provided in the Solicitation Timelines on page 9.

RESPONSIBILITIES OF GRANTEE AND TECHNOLOGY DEMONSTRATOR

The Grantee will be responsible for administration of the demonstration project and major roles will include:

- Submission of demonstration project proposal to ARB
- Administration of the project
- Oversight of technology demonstrator
- Report to ARB on project status and Grant performance
- Submission of periodic reports and Grant disbursement requests to ARB
- Coordinate periodic project status update meetings

The technology demonstrator's major roles in the demonstration project will include:

- Team with air district or other public agency to develop demonstration project application
- Provide the technical expertise in performance of the demonstration
- Timely achievement of stated demonstration project goals
- On-time reporting to the Grantee on project status and Grant performance

Progress reports from the technology demonstrator shall be submitted, at a minimum of three month intervals, to the Grantee. The Grantee is responsible to forward any progress reports unaltered to ARB within seven business days (see Reporting and Monitoring Requirements, pg. 17). Additionally, every Grant Disbursement Request shall be accompanied by a progress report that documents the time interval and the completion of specific project milestones including any specific deliverables as defined for that milestone (see Project Funding Procedure, page 16).

A final report must be submitted to ARB from the Grantee and technology demonstrator at the conclusion of the demonstration project. The demonstration project will not be complete until the final report has been accepted by ARB. The final report will include, but will not be limited to, a summary of the progress reports, any deliverables that were committed to in the project and the results from any emission testing performed and any other information required by ARB. The Draft final report is due to ARB no later than May 15, 2015 (see Sample Grant Agreement, Appendix B).

Additional reporting requirements are detailed in the Reporting and Monitoring Requirements section of this Solicitation.

ELIGIBLE PROJECTS/SCOPE OF WORK

This Solicitation covers the use of technologies that can eliminate or significantly reduce emissions of criteria pollutants and greenhouse gases from off-road equipment. Projects funded under this Solicitation must be within three years of commercialization. The Zero-Emission Off-Road Equipment demonstration project's highest priority is to support development of full zero-emission technologies in the off-road sector. The off-road sector for the purpose of this Solicitation can encompass all mobile source technologies not considered on-road. Two project types will be considered under this Solicitation:

- Zero-emission: technologies that eliminate criteria pollutant emissions completely during the equipment's entire duty cycle
- Partial zero-emission: technologies that eliminate criteria pollutant emissions for a majority (to be determined by ARB in its sole discretion) of the equipment's duty cycle

For the purpose of this Solicitation, zero-emission means that there are no direct criteria pollutant emissions from the piece of equipment when in operation, performing its designed function or during any part of its duty-cycle. Partial zero-emission means that the piece of equipment operates in zero-emission mode for a substantial portion of its duty-cycle, but does have emissions of criteria pollutants.

For the purpose of this Solicitation, off-road is defined as non on-road equipment. Off-road equipment can include but are not limited to:

- Transportation refrigeration systems
- Port equipment
- Marine vessels
- Yard trucks
- Locomotives
- Cargo handling equipment
- Ground support equipment

- Lift trucks and boom lifts
- Cordless zero-emission commercial lawn and garden equipment

Potential projects that can synergistically take advantage of existing infrastructure to further technology in other operational segments within a business should show a cost-effective advantage to other technologies that will require stand-alone infrastructure as part of a project (See Evaluation and Scoring Criteria 1, page 12).

This Solicitation may fund such activities as pilot demonstrations, construction and deployment of prototypes, emissions testing, and practical demonstrations of technologies with a high potential to be commercialized. It may not be used to fund basic research, design-only projects, or commercial production. Field applications as demonstrations of practical utility are required.

Reproducible emission testing to verify the emission benefits from the demonstration of technologies funded under this Solicitation will be required to be performed. If NO_x emissions are being measured the result will be shown as NO_x and NO plus NO₂. The emission testing procedure used to verify emission reductions should be cited in the project's narrative (see Appendix A, Attachment 2). The final emission testing procedure will be subject to ARB approval.

Data collected from emission testing as part of a selected demonstration project and included in the project's submitted workplan and scope of work can be applied toward ARB or U.S. EPA certification or verification. However, AQIP Advanced Technology Demonstration Projects funds cannot be used directly to fund formal ARB and U.S. EPA verification or certification processes.

If the project uses any engine, retrofit or piece of equipment that has or will be funded in whole or part by other public incentive programs and is still under contractual obligations, its incentive program status must be identified in the project's narrative. Additionally, the project narrative must include a plan to ensure that emission reductions required by any incentive program's contract or grant are considered for the piece of equipment that is proposed to be used for the technology demonstration (see Appendix A, Attachment 2).

AVAILABLE FUNDING

It is anticipated that only up to **\$1,000,000** will be available for this Solicitation, however, funding could be increased to a maximum of \$5 million depending on the availability of State funds. The potential number of projects selected for funding is expected to be two, but up to five projects may be selected. Funding is dependent on the availability of State funds. Administrative costs may not exceed 10 percent of the total project budget and only 10 percent of AQIP funds may be used for administrative purposes.

REQUIRED MATCHING FUNDS

The Grantee match is required to be a minimum of 50 percent of the total project budget. Match funding must be provided in the following manner:

- A minimum of 10 percent must be in the form of cash committed by the Grantee or technology demonstrator (exclusive of providing in-kind contribution).
- Up to 40 percent may be through some combination of in-kind contributions such as labor, equipment, materials, equipment transportation, private financing and federal or non-AB 118 sourced state funds.

Project facilities, laboratories, or property will not be considered as part of a proposed in-kind match whether owned or leased by the Grantee or technology demonstrator.

If a third party, (i.e., a party other than the Grantee or technology demonstrator) proposes to provide any part of the required match, the Grantee must include a letter from each third party stating that it is committed to providing a specific dollar value of cost sharing and the source of such funds. A Grantee and its partners must demonstrate technical and fiscal resources sufficient to meet their cost share commitment and complete the proposed project.

PROPRIETARY INFORMATION AND INTELLECTUAL PROPERTY

ARB will not make any claims as to ownership of equipment funded by Advanced Technology Demonstration Projects funds. The technology demonstrator and Grantee will make available information and data generated as part of the project that is described in the work plan and scope of work which will be included in the grant application (see Appendix A, Attachment 2). Additionally, the technology demonstrator and Grantee will make available any information and data needed to satisfy the requirements discussed in the Reporting and Monitoring Requirements section of this Solicitation.

ARB can keep confidential only certain types of information provided in project proposals that have been submitted in response to Solicitations. Data gathered on actual emissions to the air, as part of this demonstration project cannot be protected from disclosure. Any information determined to be a trade secret or otherwise exempt from disclosure under the Public Records Act or other provisions of law must be labeled "confidential." Review Appendix A, Attachment 4 for Procedures for Handling Confidential Information. If you wish to include confidential information, you must:

- Complete the Confidentiality Provision (Appendix A, Attachment 4) and attach it to your project proposal
- Separate confidential pages from the other elements of the project proposal (do not include any confidential information in the main project proposal)
- Clearly label every confidential page as “CONFIDENTIAL”

Project proposals will be reviewed by ARB staff and may include reviewers outside the ARB associated with public universities in California and other State government agencies as needed. In the project proposal, at the point where the information would appear if it were not confidential, please indicate its existence under the separate cover. Please provide the name, address, and telephone number of the individual to be contacted if ARB receives a request for disclosure of the information claimed as confidential. ARB may share confidential information related to a demonstration project (such as certification/verification data) with multiple units and sections within ARB.

APPLICATION REQUIREMENTS

Eligible Grantees must meet all applicable requirements of State law, AQIP Guidelines, Funding Plan, and this Solicitation. To be considered for the grant award, Grantees must complete the application and demonstrate that they meet the required Solicitation elements. ARB may request clarification regarding application responses during the application review process. Only applications that contain all the required elements as described in the Application Content and Organization section and Appendix A of this Solicitation will be scored.

Please enclose with your project proposal any documents (or pertinent excerpts) that you cite in support of performance claims in your project. However, do not include materials that are not needed to supply the information requested in these instructions. ARB will not review patent documents, engineering drawings and specifications, or promotional materials.

Include in your application package letters of support from project partners that describe the nature of their contribution to the project.

The application package must include four signed original copies and one compact disk (CD) containing the application package, including, as a single electronic file, all the required documents in Microsoft Word or PDF format. Applications that do not meet the above file requirements may not be scored and may be disqualified.

APPLICATION PROCESS

The application packet contains the application and information necessary for submittal of a complete project proposal. ARB shall select the Grantee in

compliance with the AQIP Guidelines, this Solicitation and applicable State law. Grantee selection will be based upon the scoring criteria identified in this Solicitation (see Evaluation and Scoring, pg. 11).

If you need this document in an alternate format or language, please contact Ms. Grace Garcia at (916) 323-2781 or ggarcia@arb.ca.gov. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service. Four signed original copies and one CD of the application must be received at the Air Resources Board headquarters at 1001 I Street, Sacramento, CA 95812.

Applications may be mailed to the following address:

Ms. Grace Garcia
Air Resources Board
Mobile Source Control Division
Post Office Box 2815
Sacramento, CA 95812

Applications must be received by Ms. Grace Garcia by **February 7, 2013, 5:00 PM**. Please provide enough time to allow for delivery to ensure that the above application submittal deadline is met. Applications received after submittal deadline will be disqualified.

Please send an email to Ms. Grace Garcia at ggarcia@arb.ca.gov identifying that you have submitted an application. ARB will confirm with the Grantee that the application was received.

No applications may be submitted by fax or email.

Solicitation Timelines

Public Release of Solicitation	December 13, 2012
Grantee Workshop	January 3, 2013 10:30 AM
Application Deadline	February 7, 2013 5:00 PM
Review/Rating of Applications	February 8-21, 2013
Grantee Selected	February 22, 2013

Signed Grant Agreement and Board Resolution Returned to ARB	June 1, 2013
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Sub-Agreement Between Grantee and Technology Demonstrator	June 31, 2013
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Timelines are subject to change at ARB's sole discretion.

Grantee Workshop

ARB will hold a Grantee Workshop at which time staff will be available to answer questions potential Grantees may have regarding eligibility, application completion and other issues.

The Grantee Workshop and conference call will be at:

Date: January 3, 2013
Time: 10:30 AM to Noon
Place: Cal/EPA Headquarters
1001 I Street, Sacramento, California
Conference Room 2410
Call-in Number: (888) 790-1641
Passcode: 43356

The workshop will be open to all interested entities. A call-in phone number is provided for those unavailable to attend in person. The intent of the workshop is to provide potential Grantees with an opportunity to ask clarifying questions regarding general application, Grantee requirements or terminology definitions. Written questions submitted before the workshop will be given priority.

Questions may be e-mailed to Mr. Earl Landberg at elandber@arb.ca.gov and may be submitted by 5 p.m. up to two days prior to the workshop. The questions and answers from the workshop and any questions received via e-mail by 5 p.m. on January 2, 2013 will be posted on the ARB website no later than 5 p.m. on January 17, 2013, this date may be extended at ARB's sole discretion. ARB will not answer questions regarding this Solicitation after the Grantee Workshop. Any verbal communication with an ARB employee concerning this Solicitation is not binding on the State and shall in no way alter a specification, term or condition of the Solicitation.

APPLICATION CONTENT AND ORGANIZATION

The ARB strongly encourages applications to be accurate, brief and clear. Applications will be initially screened for completeness. The AQIP Application for this Solicitation is included in Appendix A, and includes the following elements:

AQIP Application Form

- Attachment 1: Grantee Qualifications
- Attachment 2: Project Description
- Attachment 3: Proposed Budget
- Attachment 4: Procedures for Handling Confidential Information
- Attachment 5: Letters of Commitment

Completed applications should be assembled in the above order when submitted.

EVALUATION AND SCORING

The ARB will evaluate each application based on the criteria described below; the maximum score is 100 points. The qualified Grantee with the highest overall score will be selected for funding; however, ARB is not required to award funds if ARB determines the proposed project does not satisfy the goals of this Solicitation. Up to five independent projects may be funded under this Solicitation. It is anticipated that \$1,000,000, for all selected projects, will be available under this Solicitation. If additional funds become available and valid applications remain unfunded, those projects may be funded without reissuing a Solicitation. If an agreement with the highest scoring Grantee cannot be reached by the specified date established by ARB, then ARB may select the next highest scored project, and so on, until an agreement is reached, or exercise its right, in its sole discretion, throughout this process to not award a grant. For any funds that remain unawarded, ARB in its sole discretion, may redirect those funds to other AQIP projects or demonstration project categories.

If two or more applications are submitted for the same project those applications will be scored separately and the highest scoring project will then compete against applications submitted for different projects.

Summary of Scoring Criteria for Demonstration Projects

	Scoring Criteria	Points
1	Relevance to the Solicitation Objective and Potential Emission Reduction Benefits	20
2	Match Funding and Financial Capabilities	15
3	Project Objectives and Work Plan	10
4	Technology and Innovation	15
5	Application Completeness	10
6	Potential for Market Penetration and Commercialization of the Technology	10
7	Environmental Justice	5
8	Project Team Capabilities and Degree of Industry Collaboration	10
9	Timeline for Project Completion	5
	TOTAL	100

The **PROJECT NARRATIVE** must separately address each of the scoring criteria listed below, see instructions for the project narrative in Appendix A, Attachment 2.

1. Relevance to the Solicitation Objective and Potential Emission Reduction Benefits 20 Points

- Describe how the project meets ARB's goal under the Advanced Technology Demonstration Projects: Zero-Emission Off-Road Equipment Solicitation and the FY 2012-13 AQIP Funding Plan.
- Describe the estimated cost effectiveness of the technology in dollars per ton of criteria pollutant reduced for the two scenarios below, using the current Carl Moyer Program cost effectiveness methodology:
 - During the actual proposed project over the two year demonstration
 - Once deployed into the marketplace, **one** year post proposed demonstration

This methodology, relevant tables and instructions are included in Appendix C of this Solicitation. Provide a clear and concise description of the methodology employed in determining any potential greenhouse gas emission reductions. **Show all math used in calculations.**

- Describe the utility of the innovative technology to help California achieve its air quality goals with the objective of reducing criteria pollutant and greenhouse gas emissions from the Off-Road Equipment Category.

2. Match Funding and Financial Capabilities 15 Points

- Provide a clear and concise project budget that lists all expenditures for the project in a logical sequence that leads to on-time completion of the project. See sample budget in Appendix A, Attachment 3.
- Demonstrate that the Grantee and/or technology demonstrator will be financially capable of providing the minimum 50 percent match requirement of the total project budget (including the 10 percent cash requirement exclusive of in-kind contributions). Higher match pledges will be scored higher.
- Describe each financial contribution to the project, in addition to describing other current and pending funding sources for the required cost share match. Identify if all or a portion of the match funding is dependent upon successful grant award under any other Solicitation.
- Attach Letter(s) of Commitment from each third party (i.e., a party other than the organization submitting the application) stating that it is committed to providing a specific minimum dollar amount of cost sharing. Letters must be signed by the person authorized to commit the expenditure of funds by the entity.

3. Project Objectives and Work Plan

10 Points

- Provide a concise statement of the specific goals and objectives of the proposed project.
- In a logical sequence, describe the tasks necessary to prepare for and conduct a practical demonstration of the innovative technology. Tasks should be divided into the phases of the project, as appropriate, and described in enough detail for reviewers to understand the scope of the work.
- Provide quantitative milestones for each budget period of the project, and identify them with a title and planned completion date. The general duration for each task should be specified.
- Identify the entities that will be using the pieces of off-road equipment, data to be collected during the demonstration, the conditions under which they will be collected, and the test methods employed.
- Indicate the budget and source of funding for each task and what entity (Grantee or industry partner) will perform the task.
- Identify the resources (e.g., equipment, machine and electronic shops, field and laboratory facilities, materials, etc.) to be used at each performance site listed. Describe only those resources that are directly applicable to the proposed work. List important items of equipment already available for this project. If proposing an equipment acquisition, describe comparable equipment, if any, already at your organization and explain why it cannot be used.
- Identify any fueling or other related infrastructure already in place that will be utilized during the proposed demonstration project.
- Identify any infrastructure that will be needed to be installed to allow proper use of the piece of equipment identified in the project.

4. Technology and Innovation

15 Points

- Identify and describe the technological innovation that is the basis for the project. If the innovation is a component of a device or process, also describe the device or process. Descriptions should be understandable to reviewers who are not expert in the field. Cite (but do not include) patents if needed. Describe exactly what part of the technology is innovative, how it is innovative, and how it works.
- Describe what safety measures are in place to ensure safe operation and maintenance of the equipment: during operations, battery-charging, refueling, equipment maintenance and other operational parameters. Identify any specific issues that first responders, such as firefighters, police, etc... should be concerned with if an emergency is encountered, either due to internal or external forces, with the piece of equipment funded under this demonstration.

- Explain the technical advantages of the innovation and document performance claims.
- Describe what type of emission testing has already been done on the proposed technology.
- Describe the economic benefits that a California business could expect if they operated zero or partial zero-emission equipment that are part of this demonstration.

5. Application Completeness

10 Points

- Applications that are clear, concise, and include all the requested information will be scored higher than those that are unclear or missing information. Do not make a declaration as to application completeness in your submittal.
- Provide a written affirmation in the project narrative that all parties participating in the demonstration have read the Sample Grant Agreement that is included in this Solicitation packet as Appendix B.

6. Potential for Market Penetration and Commercialization of the Technology

10 Points

- Define target markets and explain why the targeted industries would buy the innovation after a successful demonstration project. Both markets within and outside of California should be considered.
- Describe the recent and expected growths or declines of the targeted industries.
- Identify the specific market niche for the proposed technology and describe its size and potential for growth.
- Describe any specific barriers to entry or expansion.
- Describe any special training that will be required for installation and maintenance personnel.

7. Environmental Justice

5 Points

- Explain how the proposed project, and the expected commercialized outcome of the project technology, will benefit at risk communities or populations in environmental justice areas (e.g., reduction in port diesel PM emissions). Proposed projects with the potential to benefit environmental justice communities that can demonstrate how the potential project would address the ARB's Environmental Justice policy will be scored higher. The ARB's

Environmental Justice policies can be found at:
<http://www.arb.ca.gov/ch/programs/ej/ejpolicies.pdf> .

8. Project Team Capabilities and Degree of Industry Collaboration

10 Points

- Proposals that identify the end user of the equipment, technology demonstrator, and Grantee will score higher than those that do not have all the needed participants identified in advance.
- Describe the roles and the work to be performed by each of the project's key participants, including project administration, project planning, field demonstration, and data collection and reporting.
- Describe the administrative and technical qualifications and capabilities of key personnel, such as education and training, research and professional experience, publications (patents, copyrights, and software systems may be provided in addition to or substituted for publications), and ability to administer similar air quality programs.
- Describe the Grantee's relationship and degree of collaboration with off-road equipment operators on the proposed project. Describe what business alliances and partnerships will be involved in commercialization.
- Performance of the Grantee, technology demonstrator and third party contractors with previous AQIP projects will be considered.

9. Timeline for Project Completion

5 Points

- Provide a project schedule including the milestones as described in the "Project Narrative and Workplan" section of Appendix A. Both a tabular and graphic display (such as a Gantt chart) of the project schedule is preferred, but at a minimum a tabular display is required. Information must include task duration, start and completion dates, in addition to the milestones being clearly identified.
- Demonstrate that work will be accomplished by May 30, 2015.

GRANTEE SELECTION

The successful Grantee will be required to sign a Grant Agreement with ARB to fulfill the administrative duties and technical duties associated with the project (see Appendix B, Sample Grant Agreement). Signed grant agreements and approved Board resolutions must be returned to ARB no later than the deadline described in the Application Process (page 9) of this Solicitation. If project Grant Agreements and approved Board resolutions are not returned by the deadline,

the ARB, in its sole discretion, may rescind the grant award and can redirect funds to another submitted application to this Solicitation or to another project in the Funding Plan as needed.

If, in the ARB's sole discretion, no submitted project proposal meets the goals of this Solicitation, Funding Plan or AQIP Guidelines, no selection of a Grantee or technology demonstrator will be required to be made and funding can be directed to another project in the Funding Plan as needed.

IMPLEMENTATION PROCESS

Meetings

Before work begins, a kick-off meeting will be held in Sacramento between the Grantee, the technology demonstrator, and the ARB project management staff. The purpose of this meeting will be to discuss the work plan, details of task performance, the project schedule, any changes to the project team, and any issues that may need resolution before the ARB-funded work begins. Project update meetings to discuss the project's progress will be held as often as needed, but typically monthly. These meetings can occur via telephone conference calls upon approval of the ARB Project Liaison. Project update meetings are the responsibility of the Grantee to schedule and prepare a meeting agenda. Project update meetings need to contain, but are not limited to:

- Agenda for the meeting
- Update of status of project
- Discussion of any difficulties encountered since last project update meeting
- Discussion on any deliverables that are nearing a due date
- Notification of any pending disbursement requests
- Scheduling the next project update meeting

Site visits by ARB staff may be required at ARB's sole discretion. A final meeting, or conference call pending ARB Project Liaison approval, will be held at the conclusion of the project to review the results and discuss the status of commercialization plans.

Project Funding Procedure

In order to receive a disbursement, the Grantee must submit a grant disbursement request to ARB. The Grant Disbursement Request Form (Appendix B, Exhibit C) must be signed by the party authorized and designated in Grant Agreement and include all information to substantiate the eligibility of costs to be reimbursed. AQIP grant funds will only be issued for equipment and services that are identified in the Scope of Work and Workplan included in the

application package and have already been rendered. A detailed invoice will be required. The advance of grant funds will not be allowed.

Disbursements will be made following the procedure described in the Reporting and Monitoring Requirements section of this Solicitation and the signed Grant Agreement.

Reporting and Monitoring Requirements

To ensure that public funds are being used prudently, reporting on project status and monitoring the project will be required. The Grantee must submit status reports accompanying grant disbursement requests to ARB at least every three months, but may submit on a monthly basis if necessary for more frequent invoicing, with prior approval from ARB. These reports should contain the following information, at a minimum in either Microsoft Word or PDF formats if submitted electronically as a single electronic file:

- Project Status Report number, title of project, name of Grantee, date of submission, and project grant number
- Summary of work completed since the last progress report, noting progress toward completion of tasks and milestones identified in the work plan
- Statement of work expected to be completed by the next progress report
- Notification of problems encountered and an assessment of their effects on the project's outcome
- Itemized invoice showing all costs for which reimbursement is being requested
- Discussion of the project's adherence to the project timeline

A final report is required at the end of the project and must include:

- A description of the project's goals and objectives, methods, results of the demonstration, and future application of the technology
- An update on the commercialization prospects

Requests for additional information may be required by ARB, at its sole discretion, to evaluate reports and to determine if a quarterly or final report is complete.

If the Grantee plans on pursuing official verification or certification of the emission reducing potential for its proposed technology, the Grantee must submit documentation in support of that verification or certification. The supporting documentation must be concurrently submitted to the AQIP Project Liaison assigned to the project, as identified in the Grant Agreement (Appendix B).

Any change in the project budget, re-definition of deliverables, or extension of the project schedule must be approved in advance by the ARB Project Liaison in writing.

Once a grant is in place, minor changes to the work to be done or other project scope changes may be considered by ARB, in consultation with the Grantee or technology demonstrator. ARB will not terminate a grant because of minor technical difficulties or minor under-accomplishment of stated project objectives, as determined by ARB in its sole discretion. However, ARB reserves the right to terminate a grant if ARB determines, in its sole discretion, that the objectives cannot be reached or that the Grantee, technology demonstrator or its subcontractors cannot perform the required work as specified in Section 6 of the Grant Agreement.

The Grantee and technology demonstrator must allow ARB, the California Department of Finance, the California Bureau of State Audits, or any authorized designee access, during normal business hours, to conduct reviews and fiscal audits, or other evaluations. Access includes, but is not limited to, reviewing project records, site visits, and other evaluations as needed. Project evaluations or site visits may occur unannounced as ARB staff or its designee deem necessary.